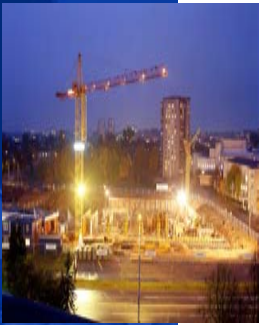


US Construction Market Outlook

CAIS Meeting, Las Vegas, NV
March 19, 2008

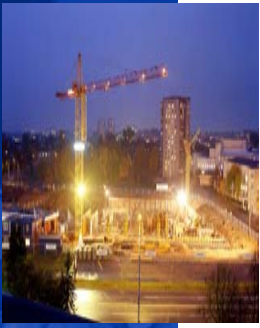
Robert Gair, Principal
RSMeans Business Solutions



Economic Outlook



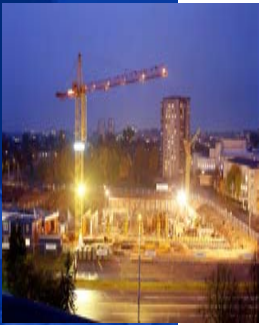
- **Employment Growth under 100K Two Months Running**
- **Unemployment Rate at 4.8%**
- **Consumer Equity Shrinking**
- **Credit Availability is Difficult**
- **Inflation on the Rise**



Economic Outlook



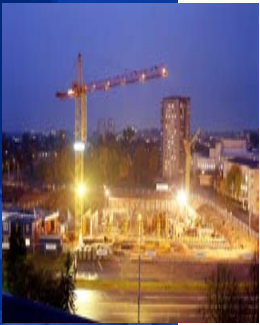
- **Sub-prime Problems Until 2009**
- **De-valuation of the Dollar**
- **Trade Deficits**
- **Orders for US Manufacturer Goods Rose 1.4% in '07**



Economic Outlook

- One-half of the State Government's Face Budget Shortfalls
- Economic Growth Slowing Outside the U.S.



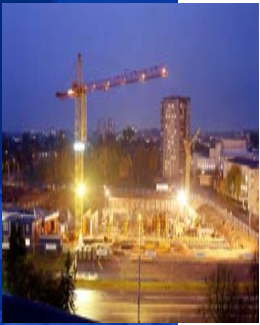


Economic Outlook

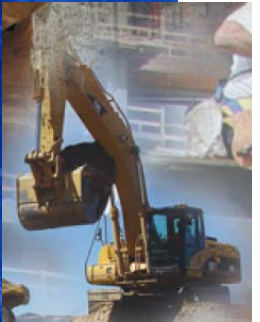
Projections...

- Recession possibility 50%
- 71% of Economist Believe the Country is in Recession
- GDP projections 0.8 – 1.7%

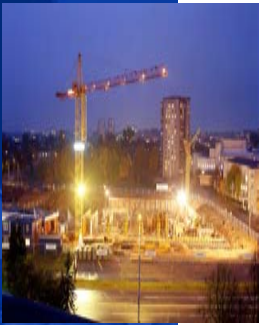




Construction Overview



- **Architect's Billing Index @ 51**
- **Commercial Lending Indicator +0.1% from '06; Eighty (80%) of Banks Tighten Credit**
- **Commercial Construction slowdown in NYC and DC**
- **Office Vacancy Rates Rising**
- **Construction Financing Remains Fragile**



Construction Overview



- **Architectural and Engineering Services Jobs Rose 3.3% on '07**
- **Hotel Construction Pipeline is up 36% in Dec '07 from Dec '06**
- **GE will Increase Investment in Renewable Energy by 50% to \$6B by 2010**
- **Union Membership Increased 2% in '07**
- **Median Wages in Private Sector Rose 3.3%; 5% in Construction**

Construction Overview

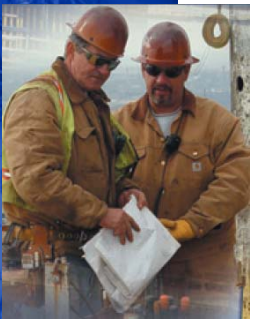
Material Prices

■ Energy costs


- ❑ Crude oil futures bottomed in January
- ❑ Forecast Oil @ \$110. pb and higher??

■ Other comments

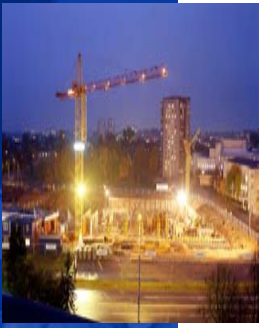
- ❑ Gypsum – decline 22%
- ❑ Since 2003 PPI 28% vs. CPI 13%
- ❑ Forecast 4 – 6% increase for '08
- ❑ Forecast thru 2012 (6 – 8%)



2005 - 2007 Construction Results



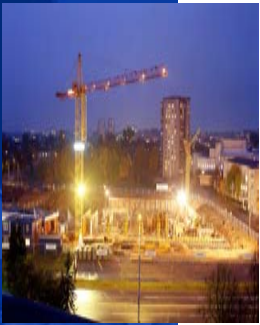
	<u>'05</u>	<u>'06</u>	<u>'07</u>
■ Resi	11.0%	-13.0%	-18.0%
■ Office	6.3%	14.0%	21.0%
■ Health	6.9%	14.0%	14.0%
■ Ed.	1.3%	6.0%	14.0%
■ Trans	2.0%	12.0%	16.0%
■ Comm	5.2%	10.0%	21.0%
■ Manu	20.7%	22.0%	9.0%



Construction Industry Facts



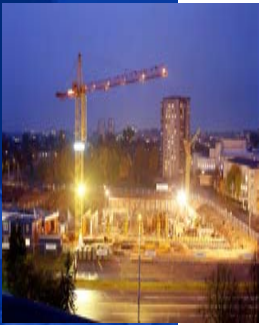
- **7.6 Million Employees; 5% of non-farm workforce**
- **Non-supervisory Pay @ \$21.27 Hr, 21% Higher versus Private Industry**
- **Construction Purchases of U.S. Manu Products is 11%**
- **Typical Construction Firm is very small.**



Construction Industry Facts



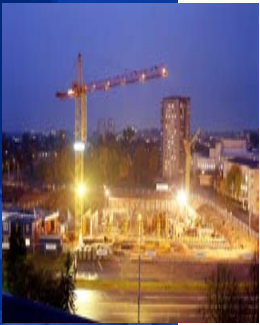
- **91% of Construction Firms Fewer than 20 Employees; 1% had 100 or more**
- **Construction is a Low Margin Industry, average is 3.7% versus 4.9% all Industries**
- **Turnover: Since 2003 16% New Firms, 12% Closed**



Material Prices



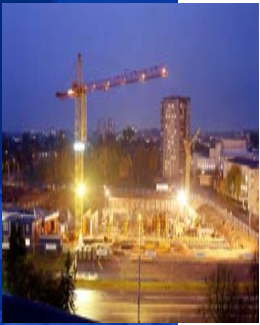
- **Copper Prices on the Rise as China's Largest Producer Shut Down Plants**
- **Aluminum Prices on the Rise due to Actions in South Africa and Mozambique Removing 1.5M metric tons from Market**
- **2008 Depends on Supply-Demand Balance in the World Markets; also the Ability of Central Bankers to Provide Adequate Credit**



Material Price Changes



<u>Material</u>	<u>'03</u>	<u>'04</u>	<u>'05</u>	<u>'06</u>	<u>'07</u>
#2 diesel fuel	13.0	37.9	46.3	2.3	22.3
Asphalt paving	3.7	4.3	4.2	37.9	1.6
Concrete	1.5	7.6	9.8	10.4	3.6
Plastics	3.2	7.2	22.6	20.1	-1.9
Gypsum	2.8	20.0	18.2	21.2	-21.6
Insulation	2.0	8.6	2.6	7.1	-4.6
Lumber	3.1	5.0	-1.0	-6.1	-1.1
Arch Coatings	3.9	5.3	9.2	8.6	4.3
Steel	1.7	48.8	-3.6	23.3	-3.7
Copper	11.6	29.6	31.0	81.0	0.5
Aluminum	-0.5	9.9	6.6	15.6	1.9



Material Price Changes (2003 – 2007)

Material

'03 – '07



#2 diesel fuel 151.0%

Asphalt paving 55.3%

Concrete 31.8%

Plastics 28.9%

Gypsum 25.6%

Insulation 11.3%

Lumber -3.5%

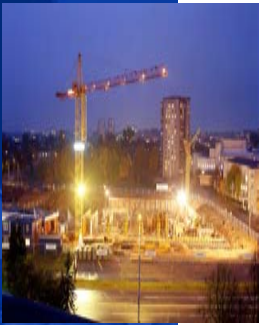
Arch Coatings 27.3%

Steel 59.3%

Copper 157.7% 05

Aluminum 29.1%

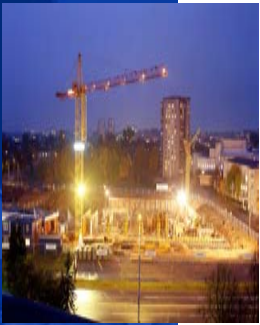




Material Price Changes



<u>Material</u>	<u>'03</u>	<u>'04</u>	<u>'05</u>	<u>'06</u>	<u>'07</u>
Fab metals	0.1	24.7	3.0	7.5	3.8
Fab Blds	-0.1	20.0	3.3	8.0	5.4
Prefab Blds	-0.7	35.5	2.8	1.2	2.7
Equipment	1.3	6.0	5.0	3.2	2.1
Crude Petro	14.3	30.5	51.3	15.7	23.2
Ind N Gas	20.3	20.1	31.5	-2.9	-4.7



Material Price Changes (2003 – 2007)

<u>Material</u>	<u>'03 – '07</u>
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Fab metals	38.2%
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Fab Blds	32.4%
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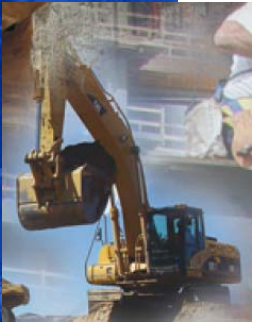
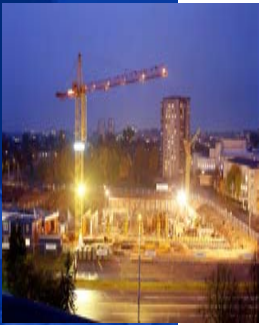
Prefab Blds	48.5%
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Equipment	17.1%
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Crude Petro	154.7%
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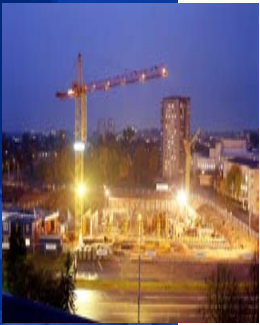
Ind N Gas	21.3%
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Energy Prices Threaten GDP Growth

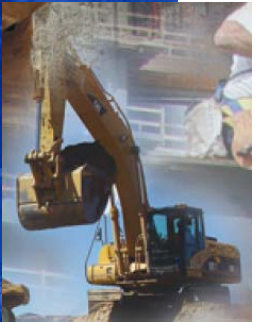
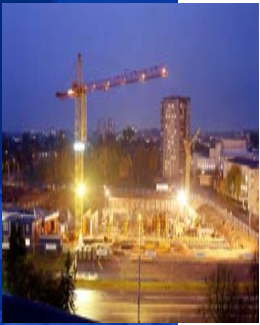
	2005	2006	2007
Crude Oil (\$/bbl.)	54.00	58.00	96.00
Gasoline (\$/gal.)	2.12	2.60	3.09
Natural Gas (\$/Mbtu)	7.15	11.70	7.84
Heating/Diesel (\$/gal. no tax)	1.51	1.81	2.17



Economic Environment for Construction

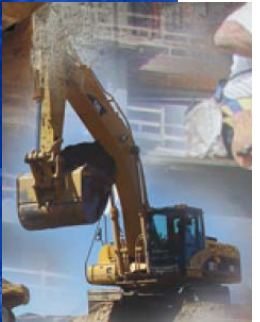
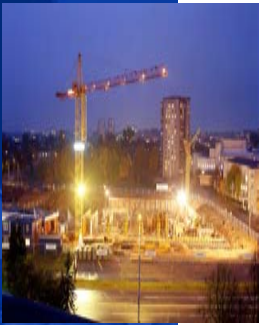


- Inflation over 3% but “core” rate 2.0% +
- GDP growth
 - ❑ '05 Q3 3.7% pre-hurricane strengthening
 - ❑ '05 Q4 3.0% disruption & reduced confidence
 - ❑ '06 1st H 4.2% rebuilding & lower energy prices
 - ❑ '06 2nd H 3.4% rising costs & inventory cuts
 - ❑ '07 2.2%
 - ❑ '08 1.4%



Construction Outlook by Sector \$B

	2005	2006	2007
New Residential	\$462.4 +9.8%	\$455.5 -1.5%	\$464.5 +2.0%
Commercial	\$128.5 +4.0%	\$141.4 +10.1%	\$161.0 +10.8%
Institutional	\$178.7 +7.3%	\$202.2 +13.2%	\$222.6 +10.1%
Heavy (Engineering)	\$179.1 +7.4%	\$198.8 +11.2%	\$221.0 +11.0%

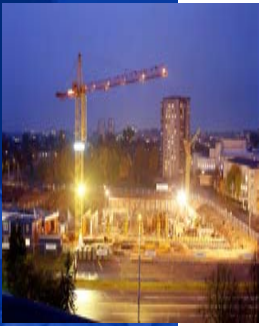


New Residential Market Forecast

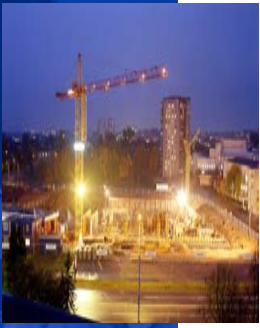
Projected # of Homes Started (000's)

Housing Starts	2005	2006	2007
NE	187	170	167
MW	356	336	329
South	973	896	872
West	518	490	484
US	2034	1893	1850
Single Family	1688	1560	1530
Multi Family	346	333	320

China



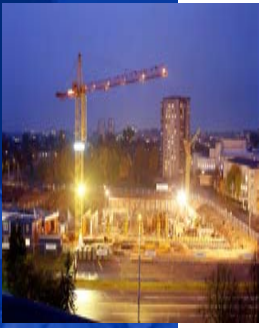
- **First in the World in Production of Coal, Steel, Cement and 10 kinds of Metals**
- **Leading Importer of Iron Ore, Steel, Copper, Tin, Zinc, Aluminum and Nickel**
- **Use Half the World's Steel and Concrete and will Construct Half the World's Buildings over the Next Decade**
- **De-forestation Created one-fourth of the Country a Desert**



China



- **Every River Flowing out of China is Threatened by some Sort of Cataclysm**
- **Acid Rain Falls on one-third of its Land Mass**
- **Shanghai Experiencing a \$12.9B Loss as a Result of the Acid Rain and Excessive Groundwater Use**
- **China rivals North Africa as the World's Leader of Cross Border Dust**

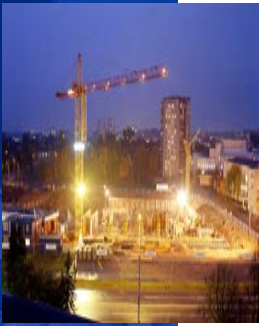


China



- **Surge in Untreated Waste and Agricultural Run-off into Yellow River and China Seas Causing fish to Die and Red-Tides**
- **Beijing Goes Green, Spending \$3.6B**

Trends



- **Building Information Modeling (BIM) is the 'hot topic'**
- **Construction Operations Building Information Exchange (COBIE)**
- **Green / Sustainability are becoming more important, particularly in Healthcare / Ed.**
- **Job Order Contracting is emerging as a Delivery Method for Renovation & Repair Projects, especially in Municipalities, Ed.**